DVD/DVB DECODER

Christopher K. Wolf Ygal Arbel

Himanshu A. Sanghavi

ABSTRACT OF THE DISCLOSURE

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The decoder, in accordance with the present invention, includes a stream demultiplexer that demultiplexes and depacketizes a stream of DVD or DVB data packets, stores the demultiplexed and depacket ized data in a data buffer and subsequently generates a tag specifying the time stamp of the data and the location of the stored data in the buffer. The CPU, using the information generated for each tag, generates a task definition packet instructing the audio and the video decoders about the location and the time that a particular data in the buffer must be decoded, simplifying the operation and design of the decoders. The generation of the task definition packets and the decoding of the data are synchronized with respect to a synchronizing signal generated within the decoder. Because the CPU is not required to demultiplex and depacketize the data, it need not have high processing power and is thus relatively inexpensive. Under the normal operating conditions, the CPU is interrupted only during the occurrence of the synchronization signals. The generation of the

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task definition packets and the decoding of the data is pipelined. Therefore, during each synchronization signal, the decoder decodes a data packet in accordance with a task definition packet that the CPU generated during the previous synchronization signal. The audio decoder detects the audio sync word and so informs the CPU which along with the time stamp of the data provided thereto by the stream demultiplexer determines the presentation time of the audio frame.